**GROUP NO.: IV**

**GROUP MEMBERS:**

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**OBJECTIVES:**

1. To understand the saponification process involved in soap-making.

2. To produce a skin-friendly goat’s milk soap.

3. To observe safety precautions by knowing the chemicals being handled such as lye.

**MATERIALS/CHEMICALS**

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* rubber gloves
* lab gowns
* 2 stainless steel containers
* 1 stainless steel pan
* 1 silicone soap mold
* thick towel for covering
* tablespoon
* heat source
* glass rod
* graduated cylinder
* dry cloth
* thermometer

**INGREDIENTS**

* 20-24 ounces of chilled goat’s milk (to be added at trace stage)
* 10 ounces of Cold Water (Ice Water)
* 11.12 ounces of Lye
* 16 ounces Coconut Oil
* 2 ounces of Mineral Oil
* 46 ounces Corn Oil
* 16 ounces Palm Oil
* 5 tablespoons of Sugar
* 2.5 tablespoons of Sea Salt and ½ oz. Essential Oil (Eos, lavender and patchouli are commonly used)

**PROCEDURE:**

1. Add lye, sugar and salt to water until dissolved.
2. In a separate pan, measure and mix coconut oil, palm oil and corn oil and heat to approximately 100 degrees.
3. Mix both mixtures (lye and oil mixture). Make sure that when you combine them, they have the same (or at the very least, almost the same) temperature, preferably at 100 degrees.
4. Stir for 5 minutes. (You can use a stick, hand-held blender for this, or do manual labor by hand mixing.) Rest every other five minutes until it forms a light trace.
5. Add mineral oil and goat’s milk. Stir.
6. Add the essential oil and stir until well mixed.
7. Pour into molds and cover. Let it rest and harden in a place where it will be undisturbed in the next 48 hours.

Source: <http://www.supersoapmaking.com/>